



Basic Statistics

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Agenda We Learnt...

Statistics basics



Introduction to
Statistics



Different areas
of statistics

Today's Agenda

Statistics Jargon

Statistical Jargon..

- **Population:** A collection, or set, of individuals or objects or events whose properties are to be analyzed.

Two kinds of populations: finite or infinite.

- **Sample:** A subset of the population. It should be representative of population.
- **Variable:** A characteristic about each individual element of a population or sample.
- **Data (singular):** The value of the variable associated with one element of a population or sample. This value may be a number, a word, or a symbol.
- **Data (plural):** The set of values collected for the variable from each of the elements belonging to the sample.
- **Experiment:** A planned activity whose results yield a set of data.
- **Parameter:** A numerical value summarizing all the data of an entire population.
- **Statistic:** A numerical value summarizing the sample data.

Data Representation

mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear
21	6	160	110	3.9	2.62	16.46	0	1	4
21	6	160	110	3.9	2.875	17.02	0	1	4
22.8	4	108	93	3.85	2.32	18.61	1	1	4
21.4	6	258	110	3.08	3.215	19.44	1	0	3
18.7	8	360	175	3.15	3.44	17.02	0	0	3
18.1	6	225	105	2.76	3.46	20.22	1	0	3
14.3	8	360	245	3.21	3.57	15.84	0	0	3
24.4	4	146.7	62	3.69	3.19	20	1	0	4
22.8	4	140.8	95	3.92	3.15	22.9	1	0	4
19.2	6	167.6	123	3.92	3.44	18.3	1	0	4
17.8	6	167.6	123	3.92	3.44	18.9	1	0	4
16.4	8	275.8	180	3.07	4.07	17.4	0	0	3
17.3	8	275.8	180	3.07	3.73	17.6	0	0	3
15.2	8	275.8	180	3.07	3.78	18	0	0	3
10.4	8	472	205	2.93	5.25	17.98	0	0	3
10.4	8	460	215	3	5.424	17.82	0	0	3
14.7	8	440	230	3.23	5.345	17.42	0	0	3
32.4	4	78.7	66	4.08	2.2	19.47	1	1	4
30.4	4	75.7	52	4.93	1.615	18.52	1	1	4
33.9	4	71.1	65	4.22	1.835	19.9	1	1	4
21.5	4	120.1	97	3.7	2.465	20.01	1	0	3
15.5	8	318	150	2.76	3.52	16.87	0	0	3
15.2	8	304	150	3.15	3.435	17.3	0	0	3
13.3	8	350	245	3.73	3.84	15.41	0	0	3
19.2	8	400	175	3.08	3.845	17.05	0	0	3